UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,105	03/23/2004	Toru Okada	1075.1255	1845

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EXAMINER
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ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 February 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 2/24/05 have been fully considered but they are not persuasive. Applicant argues that the prior art references do not teach the new features of independent claims 1, 31, and 32.   However, Examiner submits that the design support system of Mateau et al. reads on these claims. For example, Mateau et al. discloses that the design of the slides and lifters affects every other part of the mold including block size, insert layout, cooling circuit design and injection methods. The process and system of Mateau et al. accounts for the interrelationship of every part with every other part in the mold and makes certain specific modifications according to the specific application to reach an optimal mold design solution in view of the constraints of that specific mold [0031]. Best practices are catalogued and listed within an internal knowledge base and drawn upon during design of the mold. Each item and component included in a mold can also include a limitation or recommended practice contained within the internal database [0046]. The data on each component configuration contained within a Master Control File, along with application specific data is used with the design, and selection of each component within the tooling assembly or mold. Therefore, interrelationships between every component, with respect to every other component within the tooling assembly is continuously validated and maintained to provide a working tooling assembly at the end of the design process [0056]. Mateau et al. automatically determines a configuration for tooling assembly components with

respect to selected components, part geometries, and tooling assembly requirements, or element types (claim 1). Examiner submits that these teachings of Mateau et al. read on the claimed "determination information" associated with "element types", the "determination information" being at least one of a "conditional expression" or "incidental expression" that caused other element types to be selected or prevented based on a selected element type. In other words, the system of Mateau et al. selects optimal component combinations and prevents inefficient component combinations during design of the manufacturing assembly.

Claim 33 is a broader recitation of claims 1, 31, and 32, and thus Mateau et al. reads on this claim as well.

With respect to claims 12 and 13, the rejection based on Mateau et al. is maintained. Applicant has not specifically responded to this rejection based on inherency).

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is insufficient antecedent basis for the limitations in claims 5 and 7 since these claims depend from a cancelled claim.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1, 4, 6, 8-20, 22, and 29-33 are rejected under 35 U.S.C. 102(e) as being

anticipated by Mateau et al. U.S. Patent No. 2004/0064211. Mateau et al. discloses:

1.   A design support system, method, and program for supporting design of a manufacturing

line constituted by combination of a plurality of element types, said system comprising: an element type

database for storing information about said element types beforehand (e.g., [0007], [0016], [0041],

[0052]); an indication section which indicates to an operator in selectable manner said element types

stored in said element type database (e.g., [0007], [0016], [0041], [0052]); a selection section enabling

section of arbitrary element types to be used for constituting said manufacturing line from among said

element types indicated by said indication section (e.g., [0007], [0016], [0041], [0052]); an element type

determination section for determining said element types or specifications of said element types based on

said element types selected by said selection section (e.g., [0031], [0046], [0056]); a manufacturing line

information preparation section for preparing information about said manufacturing line by acquiring

information about said element types stored in said element type database based on said element types

selected by said selection section (e.g., [0050]); and an output section outputting information about said

manufacturing line prepared by said manufacturing line information preparation section (e.g., [0050]),

wherein said manufacturing line information preparation section prepares information about said

manufacturing line based on said element types or said specifications of said element types determined

by said element type determination section, said element type database stores determination information

in association with said element types, and said element type determination section determines said

element types or specifications of said element types based on said determination information, and said

determination information is at least one of a conditional expression having information pertaining to

another constituent element or element type complying with the selected element type, which would

otherwise be caused when a first element type has been selected, and an incidental expression having

information to be used for preventing reflection of information about a specific constituent element or

element type in response to the selected element type, which would otherwise be caused when a second

element type has been selected (e.g., [0031], [0046], [0056]).

4.   The design support system according to claim 1, wherein said element type database

stores manufacturing steps (processes and devices) employed in said manufacturing line, in association

with element types relevant to said manufacturing steps (e.g., [0017], [0039], [0051], [0059]-[0061]).

6.   The design support system according to claim 4, wherein said element type database

hierarchically manages said manufacturing steps (e.g., [0017], [0039], [0051], [0059]-[0061]).

8.   The design support system according to claim 1, further comprising a component

database which stores information about components constituting said element types (e.g., [0007],

[0043], [0046]-[0048], [0053]).

9.   The design support system according to claim 4, further comprising a component

database which stores information about components constituting said element types (e.g., [0007],

[0043], [0046]-[0048], [0053]).

10.   The design support system according to claim 6, further comprising a component

database which stores information about components constituting said element types (e.g., [0007],

[0043], [0046]-[0048], [0053]).

11.   The design support system according to claim 8, wherein said component database

performs sorting and extraction of information about said components registered in said component

database while taking predetermined conditions as a key (sorting and extracting based on database

parameters or "keys" is an inherent function of all databases, including the database of [0007], [0043],

[0046]-[0048], [0053]).

12.   The design support system according to claim 9, wherein said component database

performs sorting and extraction of information about said components registered in said component

database while taking predetermined conditions as a key (sorting and extracting based on database

parameters or "keys" is an inherent function of all databases, including the database of [0007], [0043],

[0046]-[0048], [0053]).

13.   The design support system according to claim 10, wherein said component database

performs sorting and extraction of information about said components registered in said component

database while taking predetermined conditions as a key (sorting and extracting based on database

parameters or "keys" is an inherent function of all databases, including the database of [0007], [0043],

[0046]-[0048], [0053]).

14.   The design support system according to claim 8, further comprising information about an

engineering drawing of said components in association with said components, wherein said output

section outputs information about an engineering drawing of said components (e.g., [0050]).

15.   The design support system according to claim 9, further comprising information about an

engineering drawing of said components in association with said components, wherein said output

section outputs information about an engineering drawing of said components (e.g., [0050]).

16.   The design support system according to claim 10, further comprising information about

an engineering drawing of said components in association with said components, wherein said output

section outputs information about an engineering drawing of said components (e.g., [0050]).

17.   The design support system according to claim 11, further comprising information about

an engineering drawing of said components in association with said components, wherein said output

section outputs information about an engineering drawing of said components (e.g., [0050]).

18.   The design support system according to claim 12, further comprising information about

an engineering drawing of said components in association with said components, wherein said output

section outputs information about an engineering drawing of said components (e.g., [0050]).

19.   The design support system according to claim 13, further comprising information about an engineering drawing of said components in association with said components, wherein said output section outputs information about an engineering drawing of said components (e.g., [0050]).

20.   The design support system according to claim 1, further comprising: information about the appearance of said element types; and an appearance information preparation section for preparing information about the appearance of said manufacturing line on the basis of information about the appearance of said element types, wherein said output section outputs information about the appearance of said manufacturing line prepared by said appearance information preparation section (e.g., [0050]).

22.   The design support system according to claim 1, further comprising: a condition input section which enables input of conditions pertaining to preparation of information about said manufacturing line be prepared by said manufacturing line information preparation section, wherein said manufacturing line information preparation section selectively uses said plurality of element types on the basis of information about said element types stored in said element type database, thereby preparing information about said manufacturing line satisfying said conditions input by said condition input section (e.g., [0007], [0016], [0031], [0041], [0046], [0052], [0056]).

29.   The design support system according to claim 1, wherein information pertaining to said element types stored in said element type database comprises at least any of a manufacturing unit price, a delivery time, accuracy, a processing time, visual information, and comment (e.g., [0050]-[0051], [0058]), all pertaining to said element types.

30.   The design support system according to claim 1, wherein information about said manufacturing line is information pertaining to performance or a manufacturing cost of said manufacturing line (e.g., [0050]-[0051], [0058]).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mateau et al. as applied to claim 1 above, and further in view of Beauchesne U.S. Patent No. 5,777,876. Mateau et al. does not appear to explicitly disclose the features of claim 21. However, Beauchesne discloses:

21.   A design support system comprising a manufacturing line information storage section which can store a plurality of pieces of information about said manufacturing line prepared by a manufacturing line information preparation section and which can extract and arrange said plurality of pieces of information about said manufacturing line under arbitrary conditions on the basis of details of said information about said manufacturing line; and a line candidate indication section for indicating said extracted and arranged information about said manufacturing line as a candidate for said manufacturing line (e.g., col. 2 line 25 – col. 4 line 7, col. 14 lines 10-41, col. 16 lines 23-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mateau et al. with Beauchesne since Beauchesne teaches that such a modification allows an operator to view, compare, and reuse or copy previous designs when formulating new designs, thus simplifying the design process (e.g., col. 14 lines 10-41).

8.   Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mateau et al. as applied to claims 1 and 8 above, and further in view of Fischer et al. U.S. 2004/0158340. Mateau et al. does not disclose an external information processing system for managing manufacturing costs and purchases of the manufacturing line,

wherein the output section outputs said information about the manufacturing costs of the manufacturing line. However, Fischer et al. discloses a design support system comprising:

23.   A data exchange section capable of exchanging data with an external information processing system (e.g., [0070], [0075], [0077], [0105]).

24.   The design support system according to claim 23, wherein said external information processing system is a system for managing manufacturing costs of said manufacturing line; said data exchange section acquires from said external information processing system information about manufacturing costs of said manufacturing line; and said output section outputs said information about said manufacturing line prepared by said manufacturing line information preparation section and said information about manufacturing costs of said manufacturing line data exchange section in such a manner that acquired by said pieces of information can be compared with each other (e.g., [0070], [0075], [0077], [0105]).

25.   The design support system according to claim 23, wherein said external information processing system is a purchasing system, and said data exchange section transfers, to said purchasing system, said information about said manufacturing line prepared by said manufacturing line information preparation section (e.g., [0111], [0116], [0124]).

26.   The design support system according to claim 24, wherein said external information processing system is a purchasing system, and said data exchange section transfers, to said purchasing system, said information about said manufacturing line prepared by said manufacturing line information preparation section (e.g., [0111], [0116], [0124]).

27.   The design support system according to claim 8, further comprising computing at least the number of components required to constitute said manufacturing line as information about said manufacturing line on the basis of said information about components constituting said element types stored in said component database (e.g., [0070], [0075], [0077], [0105], [0111], [0116], [0124]).

28.   The design support system according to claim 27, further comprising a data exchange section exchanging data with an external information processing system, wherein said data exchange section transfers at least the number of components required to constitute said manufacturing line to said external information processing system (e.g., [0070], [0075], [0077], [0105]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mateau et al. with Fischer et al. since Fischer et al. teaches that such a data exchange results in reductions to the cost and shortening of the schedule to design, configure, order and manufacture an injection molding system (e.g., [0111]).

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP § 706.07(a).   Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
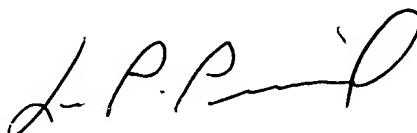
10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan A. Jarrett
Examiner
Art Unit 2125

3/24/05

LEO PICARD
SUPERVISORY PATENT EXAMINER
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